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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MUSA, ABDELNABI O

ART UNIT

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2446

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/748,774	Applicant(s) FREY ET AL.	
	Examiner ABDELNABI O. MUSA	Art Unit 2446	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02/25/2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5,7,11-15,35-37,39,44-46,54 and 55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5,7,11-15,35-37,39,44-46,54 and 55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>02/25/2009</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Acknowledgment is made for the applicant's response and amendment filed on 02/25/2009.

Remarks

2. The following Claims 4, 6, 8-10, 16-34, 38, 40-43, 47-53, and 56-66 have been canceled from the instant application

Affidavits 37 CFR 1.31

3. The affidavit filed on 02/25/2009 does not comply with the rules and regulation of 37 CFR 1.31 set forth in the MPEP. Applicant did not include the document "SAP Invention Disclosure Form" titled, A Hierarchical Monitor Tree Employed within a JMX Interface. as stated in the enclosed affidavits.

Claim Rejections - 35 USC § 103

4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim 1-3,5, 7, 11-15, 35-37, 39, 44-46, and 54-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kekic et al. Patent No. (US 6,788,315 B1) in view of Jung et al. Patent No. (US 6,308,208 B1)

As per **claim 1** Kekic teaches a method, comprising:

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arranging monitor managed beans (managed element server 315 and element manger Col.5, Line 34; Col.16, line 15; FIG.3A) in a hierarchical tree structure (hierarchical tree structure 604 Col.23, Line 22; FIG.37A), wherein each of the monitor managed beans (315) to seek monitoring of one or more corresponding resources of a plurality of resources (a plurality of managed element objects Col.17, line 58) associated with one or more nodes of a plurality of nodes of the hierarchical tree structure (the tree contains a plurality of nodes and sub-nodes Col.35, line 14; FIG.6C), wherein the monitor managed beans (element manger 800 Col.16, line 15; FIG.8) are associated with runtime managed beans (manger provides run-time environment Col.6, Line 63) responsible for monitoring the plurality of resources (the manger provides the run-time environment in which the element managers mange and monitor computer network elements Col.6, Line 63; FIG.3A);

monitoring the plurality of resources (a plurality of managed element objects Col.17, line 58) via the runtime managed beans (manger provides run-time environment Col.6, Line 63),

Kekic fails to explicitly teach wherein each of the runtime managed beans to collect monitoring information for its assigned resource of the plurality of resources, and receiving the monitoring information from the runtime managed beans, wherein the monitoring information is received by the monitor managed beans at the plurality of nodes.

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computing environment, wherein a given master resource comprises a set of given computing resources (plurality of nodes). The method begins by associating a set of one or more "cells" with a set of given computing resources that comprise the master resource. Each cell preferably is associated with a respective one of the set of given computing resources and has a set of one or more attributes whose values collectively defined a "state" of the cell. Whenever a change in an attribute of a given cell effects a change in that cell's state, the attribute change is propagated across each cell directly impacted by the cell state change, the monitoring begins by deploying instances of a runtime engine across a subset of the machines (nodes) to create a distributed runtime environment in the network. Then, a set of one or more monitoring agents are associated with the subset of the machines. Each monitoring agent is a cell of a distributed cellular monitor or "automaton". Each cell is associated with a respective one of a set of given computing resources and has a set of one or more attributes whose values collectively define a state of the agent or cell (Col.2, Line 5-48, 59-67; FIG.5) In order to be used as critical components for the operation of an enterprise and efficiently collect the monitored information (Col.2, Line 5; Col.6, Line 63; FIG.8)

It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified Kekic by the teaching of Jung to collect monitoring information for the assigned resource of the plurality of resources, and receiving the monitoring information from the runtime managed beans to ensure that available resources are used efficiently and in order to be used as critical components

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for the operation of an enterprise and efficiently collect the monitored information (Col.2, Line 5; Col.6, Line 63; FIG.8)

As per **claim 2** Kekic teaches the method of claim 1, further comprising:

receiving a notification from the runtime managed beans signaling availability of the monitoring information (a notification is sent to all client target objects that have subscribed for notifications Col.56, line 40-52; FIG.44); and

in response to receiving the notification (FIG.44), the monitor managed beans requesting the monitoring information from the runtime managed beans (the managed computer network element replies with the requested information to the server Col.6, line 44)

As per **claim 3** Kekic teaches the method of claim 1, further comprising:

receiving a timer notification from a timer indicating availability of the monitoring information (a timer is set to send out signal associating the request object Col.83, Line 55-67; FIG.41); and

in response to receiving the timer notification (FIG.41), the monitor managed beans requesting the monitoring information from the runtime managed-bean beans (the managed computer network element replies with the requested information to the server Col.6, line 44)

As per **claim 5** Kekic teaches the method of claim 1, but fails to explicitly teach wherein the plurality of resources include one or more of Advanced Business Application Programming (ABAP) resources associated with an ABAP engine, and Java resources associated with a Java 2 Platform, Enterprise Edition (J2EE) engine (Col.8, Line 48-60; FIG.7), the plurality of resources include one or more of kernel, services, interfaces, and libraries (FIGs.37)

As per **claim 7** Kekic teaches the method of claim 1, further comprising coupling the hierarchical tree structure (604) with a central database (database 710 Col.7, Line 19; FIG.7) and one or more client-level applications using a monitor service (monitoring client server based application Col.5, Line 34; FIG.3B)

As per **claim 11** Kekic teaches the method of claim 1, further comprising displaying the monitoring information (FIG.6B) via a monitor viewer (visual display for users Col.5, line 66).

As per **claim 12** Kekic teaches the method of claim 11, wherein the monitor viewer includes one or more of a customized visual administrator monitor viewer (Col.6, line 11-24; FIG.6C), a Web-based monitor viewer (FIG.6B), and a Graphical User Interface (GUI)-based monitor viewer (Graphical User Interface Col.6, line 56; FIG.6)

As per **claim 13** Kekic teaches the method of claim 1, wherein the monitoring information includes one or more of current monitoring status of the plurality of resources (3301 refer FIG.33), monitoring history of the plurality of resources (FIG.35A), and general information relating to the plurality of resources (monitoring the status information of resources 374 Col.14, line 48-65; FIG.3A)

As per **claim 14** Kekic teaches the method of claim 13, wherein the current monitoring status includes a color-coded indication of at least one of the status of a resource being monitored (color coded status that gives the user a visual representation of the status Col.6, Line 11-25) , the resource is nearing a critical value, the resource reaching the critical value, and the resources not being monitored (visual identify of the current level of criticality associated with the managed element Col.22, Line 1-35)

As per **claim 15** Kekic teaches the method of claim 13, wherein the monitoring history includes monitoring history (603 refer FIG.31) of the plurality of resources that is collected over a predetermined time periods (display history of elements when requested Col.22, line 48-60; FIG.6B)

As per **claim 35** Kekic teaches a system comprising:

a server (310 refer FIG.7) having a processor (621 refer FIG.6B) and a storage medium (705) coupled with the processor via a bus, the server further having an application server (FIG.3A), the application server to

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arrange monitor managed beans (managed element server 315 and element manger Col.5, Line 34; Col.16, line 15; FIG.3A) in a hierarchical tree structure (hierarchical tree structure 604 Col.23, Line 22; FIG.37A), wherein each of the monitor managed beans to seek monitoring of one or more corresponding resources of a plurality of resources (a plurality of managed element objects Col.17, line 58) associated with one or more nodes of a plurality of nodes of the hierarchical tree structure (the tree contains a plurality of nodes and sub-nodes Col.35, line 14; FIG.6C), wherein the monitor managed beans (element manger 800 Col.16, line 15; FIG.8) are associated with runtime managed beans (manger provides run-time environment Col.6, Line 63) responsible for monitoring the plurality of resources (the manger provides the run-time environment in which the element managers mange and monitor computer network elements Col.6, Line 63; FIG.3A)

monitor the plurality of resources (a plurality of managed element objects Col.17, line 58) via the runtime managed beans (manger provides run-time environment Col.6, Line 63),

Kekic fails to explicitly teach wherein each of the runtime managed beans to collect monitoring information for its assigned resource of the plurality of resources, and receiving the monitoring information from the runtime managed beans, wherein the monitoring information is received by the monitor managed beans at the plurality of nodes.

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computing environment, wherein a given master resource comprises a set of given computing resources (plurality of nodes). The method begins by associating a set of one or more "cells" with a set of given computing resources that comprise the master resource. Each cell preferably is associated with a respective one of the set of given computing resources and has a set of one or more attributes whose values collectively defined a "state" of the cell. Whenever a change in an attribute of a given cell effects a change in that cell's state, the attribute change is propagated across each cell directly impacted by the cell state change, the monitoring begins by deploying instances of a runtime engine across a subset of the machines (nodes) to create a distributed runtime environment in the network. Then, a set of one or more monitoring agents are associated with the subset of the machines. Each monitoring agent is a cell of a distributed cellular monitor or "automaton". Each cell is associated with a respective one of a set of given computing resources and has a set of one or more attributes whose values collectively define a state of the agent or cell (Col.2, Line 5-48, 59-67; FIG.5) In order to be used as critical components for the operation of an enterprise and efficiently collect the monitored information (Col.2, Line 5; Col.6, Line 63; FIG.8)

It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified Kekic by the teaching of Jung to collect monitoring information for the assigned resource of the plurality of resources, and receiving the monitoring information from the runtime managed beans to ensure that available resources are used efficiently and in order to be used as critical components

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for the operation of an enterprise and efficiently collect the monitored information (Col.2, Line 5; Col.6, Line 63; FIG.8)

As per **claim 36** Kekic teaches the system of claim 35, wherein the application server is further to couple the hierarchical tree structure with a central database (database 710 Col.7, Line 19; FIG.7) and one or more client-level applications using a monitor service (monitoring client server based application Col.5, Line 34; FIG.3B)

As per **claim 37** Kekic teaches the system of claim 36, wherein the one or more client-level applications include one or more of a computing center management system (FIG.6B), administrative tools, and third party tools (visual display for users Col.5, line 66).

As per **claim 39** Kekic teaches the system of claim 35, wherein the administrative tools include a monitor viewer to display the monitoring information, wherein the monitor viewer includes a customized visual administrator monitor viewer (Col.6, line 11-24; (Col.6, line 11-24; FIG.6C), Web-based monitor viewer (Col.6, line 11-24; FIG.6C), and a Graphical User Interface (GUI)-based monitor viewer (Graphical User Interface Col.6, line 56; FIG.6)

As per **claim 44** Kekic teaches a machine-readable medium having instructions which, when executed, cause a machine to:

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arrange monitor managed beans (managed element server 315 and element manger Col.5, Line 34; Col.16, line 15; FIG.3A) in a hierarchical tree structure (hierarchical tree structure 604 Col.23, Line 22; FIG.37A), wherein each of the monitor managed beans to seek monitoring of one or more corresponding resources of a plurality of resources (a plurality of managed element objects Col.17, line 58) associated with one or more nodes of a plurality of nodes of the hierarchical tree structure of a monitor tree (the tree contains a plurality of nodes and sub-nodes Col.35, line 14; FIG.6C), wherein the monitor managed beans (element manger 800 Col.16, line 15; FIG.8) are associated with runtime managed beans responsible for monitoring, the plurality of resources (the manger provides the run-time environment in which the element managers mange and monitor computer network elements Col.6, Line 63; FIG.3A);

monitor the plurality of resources (a plurality of managed element objects Col.17, line 58) via the runtime managed beans (manger provides run-time environment Col.6, Line 63)

Kekic fails to explicitly teach wherein each of the runtime managed beans to collect monitoring information for its assigned resource of the plurality of resources, and receiving the monitoring information from the runtime managed beans, wherein the monitoring information is received by the monitor managed beans at the plurality of nodes.

However, Jung teaches a method for monitoring resource in a large distributed

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computing environment, wherein a given master resource comprises a set of given computing resources (plurality of nodes). The method begins by associating a set of one or more "cells" with a set of given computing resources that comprise the master resource. Each cell preferably is associated with a respective one of the set of given computing resources and has a set of one or more attributes whose values collectively defined a "state" of the cell. Whenever a change in an attribute of a given cell effects a change in that cell's state, the attribute change is propagated across each cell directly impacted by the cell state change, the monitoring begins by deploying instances of a runtime engine across a subset of the machines (nodes) to create a distributed runtime environment in the network. Then, a set of one or more monitoring agents are associated with the subset of the machines. Each monitoring agent is a cell of a distributed cellular monitor or "automaton". Each cell is associated with a respective one of a set of given computing resources and has a set of one or more attributes whose values collectively define a state of the agent or cell (Col.2, Line 5-48, 59-67; FIG.5) In order to be used as critical components for the operation of an enterprise and efficiently collect the monitored information (Col.2, Line 5; Col.6, Line 63; FIG.8)

It would have been obvious to a person having ordinary skilled in the art at the time the invention was made to have modified Kekic by the teaching of Jung to collect monitoring information for the assigned resource of the plurality of resources, and receiving the monitoring information from the runtime managed beans to ensure that available resources are used efficiently and in order to be used as critical components

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for the operation of an enterprise and efficiently collect the monitored information (Col.2, Line 5; Col.6, Line 63; FIG.8)

As per **claim 45** Kekic teaches the machine-readable medium of claim 44, wherein the instructions which, when executed, further cause the machine to:

receive a notification from the runtime beans signaling availability of the monitoring information (a notification is sent to all client target objects that have subscribed for notifications Col.56, line 40-52; FIG.44); and

in response to receiving the notification, the monitor managed beans request the monitoring information from the runtime managed beans (the managed computer network element replies with the requested information to the server Col.6, line 44)

As per **claim 46** Kekic teaches the machine-readable medium of claim 44, wherein the instructions which, when executed, further cause the machine to:

receive a timer notification from a timer indicating availability of the monitoring information (a timer is set to send out signal associating the request object Col.83, Line 55-67; FIG.41); and

in response to receiving the timer notification, the monitor managed beans request the monitoring information from the runtime managed beans (the managed computer network element replies with the requested information to the server Col.6, line 44).

As per **claim 54** Kekic teaches the machine-readable medium of claim 44, wherein the instructions which, when executed, further cause the machine to display the monitoring information via a monitor viewer (visual display for users Col.5, line 66)

As per **claim 55** Kekic teaches the machine-readable medium of claim 54, wherein the monitor viewer includes one or more of a customized visual administrator monitor viewer (Col.6, line 11-24; FIG.6C), a Web-based monitor viewer (FIG.6B), and a Graphical User Interface (GUI) based monitor viewer (Graphical User Interface Col.6, line 56; FIG.6)

Response to Arguments

5. Applicant's arguments with respect to the above treated claim(s) have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

When responding to this office action, Applicant is advised to clearly point out the patentable novelty which he or she thinks the claims present, in view of the state of the art disclosed by the references cited or the objections made. He or she must also show how the amendments avoid such references or objections See 37 CFR 1.111(c).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Abdelnabi O. Musa whose telephone number is 571-2701901. The examiner can normally be reached on Monday Thru Friday: 7:30am to 5:00pm (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Pwu can be reached on 571-2726798. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. O. M./
Examiner, Art Unit 2446

/Jeffrey Pwu/
Supervisory Patent Examiner, Art Unit 2446